



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re: Patent Application of Ashok Shukla, Mukta Shukla and
Amita Shukla

Serial No. 09/591.009
Filing Date: 06/09/00

Art Unit: 1723
Examiner: Therborn, E.

Title: INCISION-BASED FILTRATION/SEPARATION PIPETTE TIP

Honorable Commissioner of Patents and Trademarks
Box 8
Washington, DC 20231


Date: 03/17/2003

SUPPLEMENT to APPEAL BRIEF

This refers to letter from examiner for non-compliance report dated 01/28/03. Herewith I am sending a supplemental appeal brief. Herewith, we request to remove the non-compliance clause from our appeal brief and please process our appeal for further action.

Thanking you in advance

Sincerely,


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(4) Status of amendments.

After the final rejection, Amendments were submitted
to Ms. Wanda L. Walker, SPE on 09/18/02, which were
not entered.

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(6) Issues

The following issues are presented for review:

(i)

In the final rejection, claims 1, 2, 4, 5, 7-11, 13-
16 and 20 are rejected under 35 USC 102(e) and 35 USC
10 (a) over Valaskovic (US Patent No. 6,190,559).

(ii)

Claim 4 is rejected under 35 USC 103(a) as being
unpatentable over Valaskovic (559).

(iii)

Claim 20 is rejected under 35USC 103 (a) as being unpatentable over Valaskovic (559) in view of Golias (US patent 4, 341, 635)

(8) Argument.

The following arguments point to the errors we see in the rejection of our claims by Mr. Therkorn.

(i)

Our argument for Issue (i) is that our device is clearly different from that of Valaskovic(559) since we take a column or tube with one closed end and fill it with chromatographic particles. Then we make a very small slit at the closed end such that the width of the slit is smaller than the size of chromatographic particles so that the material is not lost during sample preparation and the solution can flow freely through the pipette tip. Therefore rejection under 35 USC 102(e) in alternative under 35 USC 103 (a) does not apply, as our device is different from Valaskovic (US patent 559)device.

(ii)

The rejection of claim 4 under 35USC 103(a) is also not applicable as our claim 4 is dependent on the claim 1 and the device in claim 1 is different than the cited patents of Valaskovic (559) and Stanford (063). Therefore claim 4 is not obvious and our device is different from (559) and (063).

(iii)

The rejection of claim 20 under 35USC 103(a) is also not applicable as our claim 20 is dependent on the claim 1 and the device in claim 1 is different from the cited patents of Valaskovic (559) and Golias (635). Therefore claim 20 is not obvious and our device is different from (559) and (635).

Further arguments for Issue (i), (ii) and (iii)

- Valaskovic patent has a column where the end of the column from where the slurry is drawn into the column is much bigger (several times the diameter of the particles) than the size of the packing material. Whereas, in our device, one end of the tube has a very fine slit or perforation, much smaller than the size of the packing particle so there is no scope for it to escape the tube even under pressure during sample preparation.
- Valaskovic patent(559) uses capillary action to fill the tube whereas in our device, we load it from the wide open end.
- Valaskovic patent(559) uses the method of slow evaporation to pack the column once the slurry has been drawn into the column and needs sintering for further application, this device can not function without sintering. Whereas, in our case, the column is loaded from the wide-open end and the solvent escapes through the perforation or slit much smaller than the size of the particle without any fear of losing the material even under pressure or vacuum application.

As described in the Argument section, we assert that the present invention is significantly different from the Valaskovic invention and neither anticipated nor obvious.

(9) Appendix

WHAT IS CLAIMED IS

1. A pipette tip for sample preparation, which contains chromatography particles and has an open upper end and a closed lower end and has one or more perforations at the said lower end to permit the passage of fluids

through said perforations while retaining chromatographic particles in the said pipette tip.

2. A pipette tip, as in claim 1, wherein said pipette tip is a holding unit is selected from the group consisting of a tube, a housing, a column, and a vial.

4. A pipette tip, as in claim 1, wherein multiple units of said pipette tip are joined together.

7. A pipette tip, as in claim 1, wherein said pipette tip is made of materials selected from the group consisting of polytetrafluoroethylene, polysulfone, polyethersulfone, polypropylene, polyethylene, fluoropolymers, cellulose acetate, polystyrene, polystyrene/acrylonitrile copolymer, PVDF, glass, and combination thereof.

8. A pipette tip as in claim 1, wherein the volume of said pipette tip is between 0.00001 and 100 milliliters.

9. A pipette tip as in claim 1, wherein one or more of said perforations are made at the bottom of or on the lateral sides of said pipette tip.

10. A pipette tip as in claim 1, wherein said perforations include one or more selected from the group consisting of cracks, slits, cuts, holes, incisions orifices, and combination thereof.

11. A pipette tip as in claims 1, wherein the method to make said perforations is a chemical or physical method

selected from the group consisting of cutting with a knife, blade, or laser beam, applying heat or pressure, using chemical reactions, and combination thereof.

13. A pipette tip as in claim 1, wherein said pipette tip contains a chromatographic or separation material which can be in a form from the group consisting of particle, powder, sheet, woven, non-woven, and combination thereof.

14. A pipette tip as in claim 1, wherein said chromatographic particles is selected from the group consisting of one type of material, a mixture of different sizes of particles, different types of materials, and combination thereof.

15. A pipette tip as in claim 1, wherein said chromatography particles is selected from the group consisting of chromatographic silica, polystyrene, carbon, polymers, media, gels, solid powders, media used for the purposes of sample filtration, separation or purification.

16. A pipette tip as in claim 1, wherein said chromatography particles can be chemically or physically modified to alter the nature of the separation process.

20. A pipette tip as in claim 1 wherein said pipette tip is combined with a piston designed to pull the sample into said pipette tip or push said sample out of said pipette tip.

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